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The CHEMIST

DECEMBER, 1937 VOLUME XIV, NO. 9

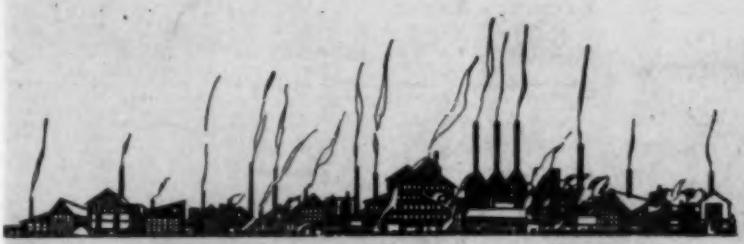
SOME FIGURES FROM
THE UNEMPLOYMENT COMMITTEE

• • •

PHILADELPHIA TECHNICAL SERVICE
COMMITTEE REPORT

• • •

REPORT ON UNFAIR COMPETITION



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The CHEMIST

Publication of

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TABLE OF CONTENTS

Chemical Exposition 287
New Certificates 288
Roster 288
New Honorary Member, William W. Buffum 289
A Few Figures from the Files of The Chemists' Unemployment Committee—*M. R. Bhagwat, F.A.I.C.* 290
Philadelphia Technical Service Committee 292
Harry Arnold Baker 294
Charles H. LaWall 294
Report on Unfair Competition 295
Dedication of the Chemical Laboratory of the University of Delaware—*Gilbert E. Seil, F.A.I.C.* 300
Employment
Positions Offered 302
Chemists Available 303
Council 304
Chapters 305
Books 310
Northern Lights—*Howard W. Post, F.A.I.C.* 312
Chemists Abroad—*James N. Taylor, F.A.I.C.* 314
News 316

THE AMERICAN INSTITUTE OF CHEMISTS
HOWARD S. NEIMAN, *Secretary*
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Chemical Exposition

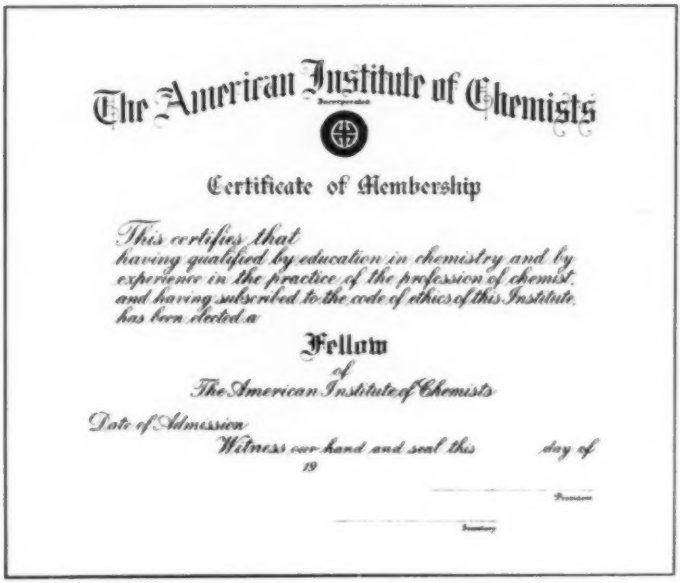
Chemists presented to the public, through the medium of the Sixteenth Exposition of Chemical Industries, New York, during the week of December sixth, a wonderful pageant of the recent progress of chemical science. Informative and colorful exhibits, covering chemical products, laboratory equipment, machinery, containers, alloys, plastics and moulded products, lacquers, precision instruments, and other materials even to fabrics made from glass, displayed the chemists' contributions to modern living and gave to an enthusiastic public a new appreciation of the useful work of chemists. This show was even more successful than those of preceding years.

THE AMERICAN INSTITUTE OF CHEMISTS was represented at this Exposition by a booth together with the Chemists' Unemployment Committee. Among those members who represented the INSTITUTE at this booth were Dr. Maximilian Toch, Dr. Edward Johnson, Mr. Harry W. Charlton, Mr. D. H. Jackson, Mr. J. W. H. Randall, Mr. Howard S. Neiman, Mr. Frank G. Breyer, and Mr. M. R. Bhagwat.

Members who visited the booth during the Exposition included: Leo Baekeland, New York; C. S. Brinton, Philadelphia, Penna.; E. E. Butterfield, Forest Hills, N. Y.; W. H. Dargan, Brooklyn, N. Y.; Emil Davidson, New York; L. L. Davis, Ponca City, Oklahoma; Lewis Davis, Worcester, Mass.; C. G. Dunkle, Dover, N. J.; H. I. Feinstein, Washington, D. C.; Thomas J. Finnegan, New York; Claude Gortatowsky, Baltimore, Md.; Joel E. Harris, Philadelphia, Penna.; C. R. Hoover, Middletown, Conn.; F. G. Metro, Hagerstown, Md.; C. W. MacMullin, Philadelphia, Penna.; Maurice L. Moore, Drexel Hill, Penna.; Rufus D. Reed, Upper Montclair, N. J.; Clifford J. Rolle, New York; N. A. Shepard, Stamford, Conn.; Chester A. Snell, Brooklyn, N. Y.; W. T. Read, New Brunswick, N. J.; Florence E. Wall, New York; Charles E. Waters, Elizabeth, N. J.; M. C. Whitaker, New York, and C. S. Williamson, Jr., New Orleans, La.

The National Council of THE AMERICAN INSTITUTE OF CHEMISTS will hold its next meeting on Thursday, January 20, 1938, at The Chemists' Club, New York, N. Y.

New Certificates



The American Institute of Chemists

Incorporated

Certificate of Membership

This certifies that
having qualified by education in chemistry and by experience in the practice of the profession of chemist, and having subscribed to the code of ethics of this Institute, has been elected a

Fellow

of

The American Institute of Chemists

Date of Admission

Witness our hand and seal this *day of*
19

President

Secretary

The new certificates are now being engraved and sent out to those members who did not receive certificates at their election. Members who already have certificates but would like to replace them with the new form may obtain them by sending requests accompanied by a check for $1.00 to the Secretary.

Roster

The January issue of THE CHEMIST will contain the names, business addresses, and positions of the members of THE AMERICAN INSTITUTE OF CHEMISTS. Cards requesting this information have been mailed to members, who are urged to fill them out and return them to the Secretary as soon as possible.

NEW HONORARY MEMBER

William Wallace Buffum

William Wallace Buffum was elected to Honorary membership in THE AMERICAN INSTITUTE OF CHEMISTS at a recent meeting of the National Council, in recognition of his outstanding work in the field of chemical education.

Mr. Buffum was born in Friendsville, Pennsylvania, August 25, 1888. He married Henrietta Carr on November 27, 1912. They have three children. He is a member of the Beacon Hill Golf Club, the Montclair Golf Club, and The Chemists' Club. His hobbies are golf and chemical education.

From 1917 to 1921 he was chief accountant for the Alien Property Custodian, and from 1921 to the present he has been with The Chemical Foundation, Incorporated. He is now treasurer and general manager of this Foundation.

Mr. A. Cressy Morrison, Honorary Member of THE AMERICAN INSTITUTE OF CHEMISTS, was elected president of the New York Academy of Sciences, the oldest scientific society in New York City, at the annual dinner held December fifteenth.

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A Few Figures from the Files of the Committee on Unemployment and Relief for Chemists and Chemical Engineers

By M. R. BHAGWAT, F.A.I.C.

Secretary, Chemists' Unemployment Committee

IN my previous communication which appeared in the November issue of THE CHEMIST, I gave the total number of qualified registrants and also added other instances of unemployed chemists who approached the Committee for assistance in securing employment. The various combinations of experiences mentioned therein are sufficient to show the difficult task of determining the suitability of each candidate to probable vacancies in specific industries.

The Committee's entire qualified registration came from graduates and post-graduates of 282 educational institutions. Of these, 170 colleges or universities, together with 24 technical institutions, are located in practically every State in the Union. The remaining 88 educational institutions represent 27 foreign countries.

It is interesting to note that 300 registrants passed their forty-fifth birthday this year. Of these, 103 have informed the Committee at one time or another that they have permanent positions. 118 failed to respond to our correspondence and were, therefore, placed on the Inactive file. The remaining 75 (25 of whom have temporary or unsuitable employment) are still on the Active file. 203 women chemists registered with the Committee. 65 have been permanently placed, 66 are on the Inactive file, and 72 are still seeking employment in the industry.

The records of 880 persons show that they were either recent graduates or did not have any chemical experience since receiving their college degree. Of these, 169 have been absorbed in permanent positions, 278 are on the Inactive file, and 433 are still on the Active file.

The Committee's office carried on correspondence with 706 chemical companies in an effort to fill vacancies reported or presented suitable experience records of chemists and chemical engineers to prospective employers.

On behalf of unemployed chemists and chemical engineers whose financial resources were nearly exhausted and hence required immediate employment, the Committee approached City, State, and Federal welfare agencies and an estimation of temporary employment secured

through these sources would approximate a maximum of 400 during the Civil Works Administration and Civil Works Service days, and a minimum of 50 during the days of the Gibson Committee. To this may be added a number of placements of non-technical but useful employment varying from a day to several weeks.

Through the courtesy of three leading technical publications, free space was donated in their "Positions Wanted" columns which enabled the Committee to present the records of 1169 unemployed chemists and chemical engineers. Replies received from these advertisments led to direct employment or leads which resulted in employment.

A total of 213 individuals and their families received financial assistance, either in the form of loans or "made-work" relief. Funds donated by members of The Chemists' Club during Christmas holidays were used to provide food for 124 persons and their families.

The average registration per month during the last six years varied from a maximum of 63 in 1932 to a minimum of 21 in 1937. The average placement per month during the same period varied from a maximum of 32 in 1935 to a minimum of 9 in 1937. No definite conclusions can be drawn from these figures as to the cause of these variations.

The Committee's work was supported by voluntary contributions received at the request of the Finance Committee. Seven appeal letters were mailed to about 6000 individuals in the chemical profession located in the greater metropolitan area, a large majority of whom are or were members of the sponsoring societies. Contributions were received from 37 companies, from 24 laboratory groups representing 224 persons, and from 1071 individuals.

The factual data presented above show the various phases of the Committee's activities. The sponsorship of the technical societies and the joint coöperation of both those employed and unemployed enabled the Committee to render the above services to the chemical profession. Here, for the first time in the history of the chemical profession in this country, a successful attempt has been made not only to give emergency aid and relief to those in need, but also to secure employment, where possible, and above all to maintain the morale of chemists and chemical engineers, thereby recognizing their previous services to the chemical profession.

Philadelphia Technical Service Committee

The following excerpts from the Fifth Annnal Report of the Philadelphia Technical Service Committee, an employment service for technical men, which is receiving coöperation from the several technical and professional associations in Philadelphia, including The American Institute of Chemists, will show the splendid accomplishments of that Committee.

FOUR years ago the distressing financial condition of a large number of technical men was so clearly evident, that it was imperative that funds be raised and financial assistance given in the form of "made work," loans or gifts.

Special attention was given to the development of the Employment Service, which had been previously established, with the thought that it would not only be better to place a man in a position in private industry, but also to reduce the demands on the Committee's financial resources.

Originally the best measure of accomplishment was to be found in the magnitude of the disbursements for welfare, but due largely to the great increase in placements made by the Employment Service, disbursements have been reduced to practically zero, yet it is believed that more effective service is now being given than at any time in the Committee's history.

It is believed that these changing conditions, and results accomplished, can best be illustrated by the following Table:

TABLE "A"

Fiscal Year — April 1 to March 31

	INCOME		DISBURSEMENTS		
Year	(*) Contributions	Service Fees	Welfare Disburse.	Operating Costs	Bank Balance
1932-33	$41,371.24		$26,901.59	$ 1,293.97	$13,175.68
1933-34	27,910.08	$ 396.23	24,510.92	2,804.18	14,166.89
1934-35	2,147.87	2,154.96	3,003.00	3,617.36	11,849.36
1935-36	361.68	6,124.57	801.03	5,872.86	11,661.72
1936-37	455.91	8,562.76	158.37	7,849.49	12,672.53
TOTAL	$72,246.78	$17,238.52	$55,374.91	$21,437.86	

(*) Includes Bank Interest and Repaid Loans.

Aims and Purposes:

The aims and purposes of the Council may be briefly expressed as the giving of aid to unemployed technical men. The form of aid and the degree of need have, of course, changed with the changing conditions but it is believed, that the methods and policies of the Committee now in effect are well within the scope of the Council's instructions.

The form of aid, as will be shown by this report, has changed from the giving of financial assistance in the form of loans or donations to the very practical service of placing men in positions, in both Government and private work, in which they became self-supporting.

* * *

Employment Service:

The Second Annual Report, covering the year 1933-34, stated: "It is not anticipated that the income from these fees will pay much more than possibly 30 per cent of the cost of operating the office." It is therefore evident, that at that time it was not thought that the Employment Service would ever develop to a point where it would not only be self-supporting but would be able to provide funds for welfare activities.

That such a point has now been reached will explain one of the reasons for the pronounced decrease in the amounts of welfare disbursements, and in order that the magnitude of the work of the Placement Service may be fully appreciated the following statistics are offered:

Table "B" below shows the volume of work handled in the office of the Employment Service, while Table "C" shows the number of men placed in positions during the past four years.

TABLE "B"

Year 1936
Jan. 1 to Dec. 31

Number of Men Registered	1058
Number of Men Placed in Positions	329
Orders Received from Employers	442
Men Sent to Employers for Interviews	1586
Office Interviews	6797
Outgoing Telephone Calls	5400
Incoming Telephone Calls	6500

TABLE "C"

Placements

1933	126
1934	141
1935	291
1936	329

While this report properly deals with the welfare of the applicant or employer, no progress could be made without the coöperation of the employer, and during the past three years, close relations have been established with a large number of employers, who have come to depend on the Committee for all their technical help, with the result that the Committee now has a dual purpose in serving both the employer and the applicant, and has assumed an obligation to continue to provide a service of ever increasing effectiveness.

It is with deep regret that THE AMERICAN INSTITUTE OF CHEMISTS records the death of two of its Fellows, Harry A. Baker on May twenty-eighth, and Charles H. LaWall on December seventh.

Harry Arnold Baker

Harry Arnold Baker was born January 20, 1872, in Pittsburgh, Pennsylvania. He obtained the Master of Science degree from Trinity University, Texas. From 1909 until 1917, he taught science in several colleges and high schools. From 1918 to 1920, he held the rank of Captain in the Chemical Warfare Service and also was an instructor in the Chemical Warfare Service School. From 1921 until the time of his death, he was professor of physics and head of the department of physics at John Tarleton Agricultural College, Stephenville, Texas. He became a member of the INSTITUTE in 1932.

Charles Herbert LaWall

Charles Herbert LaWall was born May 7, 1871, in Allentown, Pennsylvania. He received the Ph.G. and Ph.M. degrees from Philadelphia College of Pharmacy, the Honorary Phar.D. degree from the University of Pittsburgh, and the Honorary Sc.D. degree from Susquehanna University. After several years of industrial experience, Dr. LaWall became an independent analytical and consulting chemist, serving as senior member of the firm of LaWall and Harrisson until his death. He also was professor of pharmacy and dean of the Philadelphia College of Pharmacy. He was the author of many publications in pharmacy and other journals. He became a member of THE AMERICAN INSTITUTE OF CHEMISTS in 1925.

Report on Unfair Competition

This report by the Committee on Professional Advancement of the Association of Consulting Chemists and Chemical Engineers will be of interest to chemists generally.

THE Committee is convinced of the value of scientific and engineering guidance to the country and to its industries. In any program calculated to result in wholesome advance toward the attainment of prosperity, scientific and engineering consultation, research, analysis and testing must have a large place. It is important to the national welfare that there shall be a clear channel and general recourse to able services in these fields. The Committee holds this to be of first importance.

It is of secondary but still of great importance that such guidance shall be sought through channels that will have the most wholesome results. Sometimes it is sought from professional consultants and laboratories. Sometimes it is sought from governmental institutions or agencies. At other times it is sought from educational institutions or from members of their teaching staffs. The Committee in this report discusses the choice of agency through which scientific and engineering guidance should be sought. In approaching this subject, it desires to be understood as recognizing that it is more important that scientific aid be availed of than it is that any particular type of individual or organization should be selected to render such assistance.

Scientific Work by Independent Consultants and Laboratories

Scientific and engineering services of scope as wide as American industry itself are available from consultants and laboratories specializing in various fields. Independent consultants and laboratories are those which derive their main income from rendering such services. The success of such persons and organizations depends upon their competency. Unless their services give satisfaction and prove worthwhile they will fail.

While their services are scientific in character and their viewpoint is that of the professional man, with all that that implies, legally they are business men and business organizations. They must pay taxes

and must incur the costs of operation and of investment and maintenance of plant and equipment, which costs continue whether these facilities are employed economically or are carried for the convenience of occasional use for clients. In other words, the law and economic necessity make them business institutions.

The general availability of such independent consulting and laboratory services means broader opportunities for scientifically trained graduates to find employment of a nature that facilitates individual development. It tends to diffuse knowledge and use of scientific methods in the treatment of industry's problems, and at the same time operates against the setting up of monopoly in the fruits of scientific development. It is therefore wholesome and contributory to the national welfare.

Scientific Work by Government Bureaus and Agencies

The Federal and State Governments do well to establish such scientific bureaus and agencies as are required to perform services essential to their proper functions. These departments of governmental activity, in their rightful province are functioning ably and deserve and have the support, assistance, and good will of scientific men generally.

With respect to the proper scope of these bureaus and agencies, the Committee holds that they should not enter into competition with private enterprise, except in situations where the public welfare requires it. As stated in the report of the Council for Industrial Progress, released by the Coördinator for Industrial Coöperation, such competition "necessarily increases government expenditure, while decreasing tax revenues, and it operates to dry up the sources of government income." The Commitee joins in the recommendation of this Council that the Government should pursue "the sound policy of using to the maximum the facilities of private enterprises."

There is another consideration which is important to a right decision on this question. If preparedness for a national emergency is to be effective, the Government ought to be in a position to command the best scientific services which its citizens and its industries can render. In order that it may be in such a position, it is desirable that the Government shall cultivate to some reasonable degree all the scientific and engineering agencies of the country so that in time of emergency these may be expanded to meet the needs of the moment. It is particularly important to encourage private consultants and laboratories, since their services can be expanded in time of emergency with the least

upset to industry. If, when no emergency exists, the Government utilizes to some extent private consulting, research, analysis and testing services, becomes acquainted with the capabilities of agencies in these fields, and familiarizes them with government requirements, an important step toward effective preparedness will have been taken.

Out of these considerations the Committee arrives at a recommendation that the Government's scientific agencies should be accorded all necessary facilities and adequate appropriations for the successful conduct of the Government's scientific work; that governmental scientific bureaus and agencies should refrain from rendering commercial services which private agencies are prepared to render to industry and business; and that the Government, as a matter of preparedness, should adopt the plan of supplementing the work of its own scientific bureaus and agencies by using to a reasonable degree for its own work the services of private consultants and private research, analysis and testing facilities.

The Committee also recommends that whether scientific services to the Government be rendered by the Government's own bureaus or agencies or by private agencies, the results should be made public with reasonable promptness and in such specific form that all taxpayers may benefit by them, except where the national defense interest is best served by not publishing.

Scientific Work by Educational Institutions

The fundamental purposes of universities and colleges are the creation, organization and dissemination of knowledge and the development of young people for the needs of society. These functions are exercised for the benefit of the world at large. Educational institutions are supported in large measure by taxes and benefactions and largely are tax-exempt. It is consistent with these purposes and with the circumstances of their support for educational institutions to conduct fundamental research for the advancement of knowledge.

It is inconsistent with these purposes and improper in view of the nature of their support for educational institutions

(a) to render services to private interests for commercial purposes;

(b) to permit the name and prestige of the institution to become involved in consulting work undertaken by members of the staff, or to allow the use of its facilities for such work without adequate charge;

(c) to become involved in competitive activities which may restrict the opportunity for graduates of such institutions to practice the professions for which they were trained.

As a criterion which can be simply stated and easily applied, the Committee suggests that research, analysis, and testing service carried on by educational institutions should be limited to purposes which are in the interest of the public at large and which do not accrue advantageously to private interests through patents or otherwise. The result of such activities should generally be made available through reasonably prompt publication.

Scientific Work as "Sales Service"

Competition in many fields of business has become so keen that various forms of "service" have been devised to attract and hold customers. Where such service is rendered by a manufacturer in connection with the purchase or use of his own products, or by any organization in connection with its principal business, the consultant cannot question the propriety of such a situation. Such service, however, inevitably tends to expand as one competitor tries to outdo the other. The customer is seldom reluctant to accept all the service that he can get, and so eventually a time comes when the service has little or nothing to do with the product that the customer is buying. Many manufacturers recognize that they are being put to considerable extra expense for service of this kind, and while they would be glad to avoid giving it, do not feel that they can afford to discontinue it unless their competitors also agree to do so. Such practices tend to raise the cost of goods generally and are clearly not in the public interest. The Committee is of the opinion that service rendered by a manufacturer should be confined to products made or sold by the manufacturer and that no service should be rendered by any organization incidental to its principal business, when such business is in another field.

Conclusion

Summarizing conclusions from considerations which have been outlined, it is the opinion of the Committee that activities for private business, and therefore of a commercial character, lie outside the proper scope of governmental and educational institutions. Such institutions may be of most constructive service when engaging in scientific work that is made available to the people as a whole through reasonably prompt publication of findings. It is the opinion of the Committee that governmental and educational institutions, when rendering consulting,

research, analysis, and testing services for private business, engage in unfair competition with independent consultants and laboratories, which, unlike governmental or educational institutions, must incur all the proper cost of rendering professional or business services, and which will prosper or fail in proportion as those services are successful.

Accordingly consulting and laboratory services are considered to constitute unfair competition

1—When rendered by tax supported institutions.

2—When rendered by educational institutions.

3—When rendered by a manufacturer not in connection with the purchase or use of his own products.

4—When rendered by any organization incidental to its principal business which is in another field.

In addition to the foregoing, there are other unfair competitive practices which need but to be stated without comment. The Committee considers consulting, research, analysis, and testing services to constitute unfair competition

5—When rendered by persons or organizations which lack adequate equipment, experience and technical qualifications.

6—When the service is represented as being adequate but in fact is not adequate.

7—When the service by statement or implication is represented as independent but in fact is partisan.

8—When the service by statement or implication is represented as performed by a certain individual or institution but in fact is not performed by that individual or institution, or is performed without responsibility on its part.

THE CHEMIST

wishes all its readers a

Merry Christmas

and a

Happy and Prosperous New Year.

Dedication of the Chemical Laboratory of the University of Delaware, Newark, Delaware, October 16, 1937.

By **Gilbert E. Seil, F.A.I.C.**

IT WAS a pleasure to attend, as the delegate representing THE AMERICAN INSTITUTE OF CHEMISTS, the dedication exercises of the new chemical building at the University of Delaware. Delaware has acquired an excellent building, furnished with unusually fine equipment for the teaching of chemistry.

The festivities preceding the dedication included a conference on chemistry, at which several outstanding chemists discussed both purely scientific subjects and human relations as applied to chemistry and chemical subjects. Among the speakers were The Svedberg, Director of the Institute of Physical Chemistry, Uppsala University—a Nobel prize winner and the inventor of the ultra-centrifuge; Dr. Frank C. Whitmore, Dean of the School of Chemistry and Physics, Pennsylvania State College; Dr. Warren K. Lewis, Professor of Chemical Engineering, Massachusetts Institute of Technology; and Dr. James F. Norris, Professor of Chemical Engineering, Massachusetts Institute of Technology, Cambridge, Mass.

The entire program was not only instructive but also entertaining. The discussion of the lectures was quite as impressive as the lectures themselves. An interesting side-light of the various functions was the academic parade in which the representatives of the various universities, in academic dress, marched to the dedication exercises. The delegates were arranged in order of the dates of the founding of the schools they represented and not in accordance with individual academic training. After the delegates of the colleges and universities, came the representatives of the learned societies. Your delegate had the distinction of marching at the end of the line.

Among the colleges and universities represented at this dedication were the following, with the date of their founding: Harvard University, 1636; Yale University, 1701; University of Pennsylvania, 1740; Princeton University, 1746; Washington and Lee University, 1749; Columbia University, 1754; Brown University, 1764; Rutgers University, 1766; Dartmouth College, 1769; Hampden-Sydney College, 1776; Washington and Jefferson College, 1780; Washington College, 1782; Dickinson College, 1783; Franklin and Marshall, 1787; University of Pittsburgh, 1787; University of North Carolina, 1789;

Williams College, 1793; Tusculum College, 1794; Union College, 1795; Moravian College and Theological Seminary, 1807; Mount Saint Mary's College, 1808; Miami University, 1809; University of Michigan, 1817; Pennsylvania Military College, 1821; George Washington University, 1821; Philadelphia College of Pharmacy and Science, 1821; Trinity College, 1823; Kenyon College, 1824; Rensselaer Polytechnic Institute, 1824; Mississippi College, 1826; University of Alabama, 1831; Denison University, 1831; New York University, 1831; Gettysburg College, 1832; Lafayette College, 1832; Haverford College, 1833; Oberlin College, 1833; Marietta College, 1835; DePauw University, 1837; Knox College, 1837; University of Louisville, 1837; Marshall College, 1837; Mount Holyoke College, 1837; The Citadel, The Military College of South Carolina, 1842; University of Notre Dame du Lac, 1842; Villanova College, 1842; Wittenberg College, 1845; Bucknell University, 1846; Grinnell College, 1846; Earlham College, 1847; State University of Iowa, 1847; College of the City of New York, 1847; Rockford College, 1847; Hahnemann Medical College, 1848; University of Wisconsin, 1848; Woman's Medical College of Pennsylvania, 1850; St. Joseph's College, 1851; Tufts College, 1852; Antioch College, 1853; Western College, 1853; Beaver College, 1853; Polytechnic Institute of Brooklyn, 1854; Pennsylvania State College, 1855; Albright College, 1856; Birmingham-Southern College, 1856; Iowa State College, 1858; Augustana College and Theological Seminary, 1860; Vassar College, 1861; Massachusetts Institute of Technology, 1862; Kansas State College, 1863; University of Denver, 1864; Swarthmore College, 1864; Cornell University, 1865; Worcester Polytechnic Institute, 1865; Lebanon Valley College, 1866; College of Wooster, 1866; Lehigh University, 1866; Drew University, 1867; Western Maryland College, 1867; Muhlenberg College, 1867; University of Maine, 1868; University of Minnesota, 1868; West Virginia University, 1868; Boston University, 1869; Pennsylvania College for Women, 1869; Purdue University, 1869; Ursinus College, 1869; University of Cincinnati, 1870; Hunter College of the City of New York, 1870; Ohio State University, 1870; West Chester State Teachers College, 1871; Alabama Polytechnic Institute, 1872; Virginia Polytechnic Institute, 1872; Colorado College, 1874; Rose Polytechnic Institute, 1874; Park College, 1875; Grove City College, 1876; Johns Hopkins University, 1876; University of Oregon, 1876; Radcliffe College, 1879; Coe College, 1881; Drake University, 1881; Newark College of Engineering, 1883; American International College, 1885; Byrn Mawr College, 1885; Goucher College, 1885; Winthrop

College, 1886; Catholic University of America, 1887; Clark University, 1887; Pratt Institute, School of Science and Technology, 1887; Pomona College, 1887; University of Idaho, 1889; Drexel Institute of Technology, 1891; Armour Institute of Technology, 1892, University of Chicago, 1892; American University, 1893; Hood College, 1893; Upsala College, 1893; Trinity College, 1897; Carnegie Institute of Technology, 1900; James Millikin University, 1903; New Jersey College for Women, 1918, and Sarah Lawrence College, 1926.

Among the other delegates were those from the following learned societies, Franklin Institute, American Chemical Society, Society for the Promotion of Engineering Education, National Research Council, Bartol Research Foundation of the Franklin Institute, Biochemical Research Foundation of the Franklin Institute, American-Scandinavian Foundation, Swedish-American Tercentenary Association, and the Delaware Tercentenary Commission.

To serve as delegate was a most pleasant assignment and I appreciate the honor of representing THE INSTITUTE.

EMPLOYMENT

Positions Offered

Wanted: Chemical Engineer for distillery. Young man preferably with Doctor's degree. Wide experience in fermentology and bacteriology. Some distilling experience preferred. Please reply to Box 41, THE CHEMIST.

Industrial Engineer wanted. Minimum of five years experience in chemical production plant. Degree necessary. Location in the East. Salary open. Please reply to Box 43, THE CHEMIST.

Wanted: Factory Manager for drug manufacturing plant employing several hundred people. Chemical engineering training desired. Age about forty. Knowledge of raw materials used in drug manufacture. Energetic, resourceful, and good coördinator. Salary open. Please reply to Box 45, THE CHEMIST.

Readers who know of employment opportunities for chemists may be of service by sending such information to THE CHEMIST. INSTITUTE members qualify by training and experience for responsible positions.

Chemists Available

Chemical Engineer, F.A.I.C., with ten years' experience for work in production or in the development of semi-work and full scale plants from research data in the chemical or allied processing industries. Can assume full charge of work in medium sized plants. Experience in fields of fine chemicals, utilization of wastes, and gaseous syntheses operations. Please reply to Box 40, THE CHEMIST.

Student Chemist, S.A.I.C., Age 22, attending Long Island University in the evening. Ambitious, trustworthy. Food laboratory experience. Desires connection with any chemical laboratory. Please reply to Box 42, THE CHEMIST.

Fellow of THE AMERICAN INSTITUTE OF CHEMISTS. Ph.D. degree from Cornell. Age 36. Christian. Experienced in cellulose and nitrocellulose, plastics, rubber, organic and physical chemistry. Please reply to Box 32, THE CHEMIST.

Chemist, J.A.I.C., winner of student medal in chemistry; thorough training as chemist, graduate work; little experience cosmetics, sanitation; desires any opportunity as chemist. Please reply to Box 22, THE CHEMIST.

Recent graduate with degree of B.S. in chemistry, desires position; age 22, religion Catholic, speaks, reads and writes Polish; has some knowledge of bacteriology. Please reply to Box 24, THE CHEMIST.

Members of THE AMERICAN INSTITUTE OF CHEMISTS seeking positions may send in brief announcements for this Department, without charge.

Due to the death of Dr. Frederick A. Leslie, F.A.I.C., it is necessary to dispose of all his laboratory equipment, rare chemicals, dyestuffs, and chemical journals. Inspection may be made daily from nine A.M. to nine P.M. at 20 East 53rd Street, New York, N. Y.

COUNCIL

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Vice-President, ROBERT J. MOORE
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CHAPTER REPRESENTATIVES

New York	*Niagara*	*Philadelphia*	*Washington*
FRED'K W. ZERBAN	A. W. BURWELL	J. W. E. HARRISSON	LOUIS N. MARKWOOD

November Meeting

The one hundred and forty-seventh meeting of the Council of THE AMERICAN INSTITUTE OF CHEMISTS was held at The Chemists' Club, 52 East 41st Street, New York, N. Y., on November 23, 1937, at 6:00 o'clock P.M.

President Maximilian Toch presided. The following officers and councilors were present: Messrs: F. G. Breyer, B. H. Knight, H. G. Knight, R. J. Moore, H. S. Neiman, W. T. Read, J. W. E. Harrisson, N. A. Shepard, M. Toch, and F. W. Zerban. Mr. M. R. Bhagwat, Secretary of the Chemists' Unemployment Committee, was present. Miss V. F. Kimball was also present.

The minutes of the previous meeting were accepted.

The Treasurer read the auditor's report for the period from May 1, 1937, to October 31, 1937, showing a bank balance on October 31st of $2257. and liabilities of $341.19, and this report was accepted.

The Secretary reported a membership of 1275, 1027 of whom are Fellows.

Upon motion made and seconded, the following new members were elected:

FELLOWS

Allmuth, Frank S.
(1937) *Chief Supervisor,* E. I. du Pont de Nemours and Company, Inc., River Road, Station B, Buffalo, N. Y.

Ginsburg, Joseph M.
(1937), *Associate Professor of Entomology,* N. J. Agricultural Experiment Station, Rutgers University, New Brunswick, N. J.

Grant, Robert James
(1937), *Vice-president,* Young Aniline Works, Inc., Baltimore, Md.

Gray, Harold
(1937), *Manager,* Tire Compounding & Development, B. F. Goodrich Company, Akron, Ohio.

Hedenburg, Oscar F.
(1937), *Fellow,* Mellon Institute of Industrial Research, Pittsburgh, Pa.

Lange, Alfred R.
(1937), *General Manager*, Sulflo Corporation of America, Elizabeth, N. J.

McCracken, Robert F.
(1837), *Associate Professor*, Medical College of Virgina, Richmond, Va.

Mackenzie, K. G.
(1937), *Manager*, Technical Division, The Texas Company, New York, New York.

Rieman, William, 3rd
(1937), *Associate Professor*, Rutgers University, New Brunswick, N. J.

Simons, Francis L.
(1937), George LaMonte and Son, Nutley, N. J.

Smith, P. R.
(1937), *Chief*, Development Section, Barber Asphalt Company, Rahway, New Jersey.

Wallace, E. K.
(1937), *Professor of Chemistry*, Pennsylvania College for Women, Pittsburgh, Pa.

Wright, Philip A.
(1937), *Research Chemist*, Bureau of Dairy Industry, U. S. Department of Agriculture, Washington, D. C.

Upon a motion made and seconded, it was decided that $1.00 should be charged for a new certificate, if ordered by members to replace the certificate they received at election.

Upon motion made and seconded, it was agreed to hold the next Council meeting on Thursday, December 16, 1937.

Upon motion made and seconded, the name, "Chemists' Advisory Council" was adopted as the name under which the Committee on Unemployment and Relief for Chemists should be incorporated.

Mr. Breyer and Mr. Bhagwat led discussion concerning plans for the continuance of the Committee, and a tentative board of officers and directors was presented.

Upon motion made and seconded, objectives and a program were adopted for the new Chemists' Advisory Council to be incorporated.

Dr. Read reported for the Membership Committee.

There being no further business, adjournment was taken.

CHAPTERS

New York

Chairman, William T. Read *Vice-chairman*, D. D. Berolzheimer
Secretary-treasurer, James W. H. Randall
52 East 41st Street
New York, N. Y.

Council Representative, Frederick W. Zerban

The second meeting of the season was held at The Chemist's Club on Friday evening, December 17, 1937, at 7:45 P.M. Mr. Nelson Littell talked on "Reforming the Patent Laws". An informal dinner preceded the meeting.

Niagara

Chairman, Howard W. Post . *Vice-chairman.* William R. Sheridan
Secretary-treasurer, Luther M. Lauer
98 North Buffalo Street
Orchard Park, N. Y.

News Reporter to THE CHEMIST, W. A. Smith
Council Representative, Arthur W. Burwell

A meeting of the Niagara Chapter was held on December third at Norton Hall, University of Buffalo. Twenty-eight members were present. The following meetings were announced for the season: February 4, 1938; March 11th, and May 6th.

The meeting was informed that the Niagara Falls Chamber of Commerce had invited the national body of THE AMERICAN INSTITUTE OF CHEMISTS to hold its next annual meeting in Niagara Falls. It was the sentiment of the Chapter that it would not be in order to ask the INSTITUTE to meet in Niagara Falls so soon after the Buffalo meeting in 1936.

The subject of the round table for this meeting was "The Relation of Local Colleges and Universities to the Industrial Chemist". The first speaker was Dr. I. J. Wernert of Niagara University, who said that the "pure" university scientists have much in common with the "contaminated" industrial chemists. Both are trying to improve their products. The university scientists educate men and women to be chemists, but they need an active industrial group to absorb the product. The industrial chemist is very much concerned in the kind of product the university puts out. Hence the university teacher invites continuous and specific suggestions from industrial chemists and wants contacts with the latter. Modesty on the part of the teacher often prevents full realization of the ideal arrangement. The teacher should have the opportunity to visit plants, and upon occasion, to take his students with him. Industrial chemists should make their libraries available to teachers. The need for the right course in fundamentals was pointed out recently, and now such courses are available, even in inorganic theory. Niagara University wants further contact with industrial chemists.

Dr. R. C. Benner of the Carborundum Company told of the attitude of the industrial chemists. We are providing facilities for the product the university has turned out. We cannot always give the product the job he wants to do, however. The chemist must be an all-around engineer, as well as a chemist. This is a crying need today. The chemist must not only have the idea, but also the ability to apply it to industrial uses. Arrangements for graduate work in universities should be applicable to industrial problems, arranged for in "out of work" time, at night preferably. This has worked partially at the University of Pittsburgh (Mellon Institute), but professors tire of night work. This need is a real problem for industrialists. Theoretical work on their practical work for a degree is very desirable. This work should be at the man's expense, not at the expense of industry. We have tried to get this arrangement effected here, but so far have had no success. Degrees based on industrial work should be conferred after due examination.

A comment from the floor brought out the fact that most of the courses now available are designed for teachers rather than for industrial chemists.

Dr. Margaret C. Swisher, who has been associated with the organic chemistry division of the University of Buffalo's evening school for nine years, asked what the industrial plants are doing to help the student. The plants prevent employers from discussing their work, hence, the work cannot be fitted to the individual's need. The teachers do not know the "economics" of plant operation, nor plant facilities. Students should have six months in school and six months in an industrial plant, alternatively. This would solve most of the problems not now solved.

The next speaker was Dr. J. H. Crowdle of Canisius College, Buffalo, who said that he came to this meeting to get information. At our school we attempt to turn out chemists with well-rounded fundamental education. Our graduate work is limited. Our graduates who are qualified are encouraged to get an industrial position for two years, then come back for fundamental research leading to a degree. These cases have turned out well. We have learned a lot about industrial work problems from the returned students. Evening work has major economic drawbacks and puts a terrific pressure on the student.

Dr. A. F. Shepard of General Plastics remarked that university students are too well-taught. They believe all the books and teachers say. Hence, their research attitude is wrong. A research man should be taught to evaluate the evidence in his possession, knowing that books, etc., know nothing about it. He should get negative as well as positive evidence in his university work, because the exceptions eventually make the rule. The classical method is to assign a problem, then read the literature. Probably the student won't find the answer, but he will find it can't be done and then he is discouraged. The better method is one suggested by Charles F. Kettering, "Work on the problem a while, then go to the literature, if necessary."

Dr. G. H. Cartledge of the University of Buffalo commented that he did not think the criticism of college men is valid because all of the men here graduated—and the product is not so bad. The fact is the college product must have time to develop; if the foundation is right, the building in due time will be right, too. Only four out of this group of twenty-eight are doing the work they trained themselves to do. The search of literature is, generally speaking, likely to be disadvantageous which agrees with the Kettering idea. There is nothing like experience to acquaint a man with a problem. Our education lacks realism. We strive all the time at the University of Buffalo to avoid this defect. Close observation plus hard work plus imagination are largely personal characteristics and I agree that perhaps we are too well-taught. Referring to Dr. Benner's suggestion, there are practical difficulties such as patentability which hinder the application of this idea. Budget difficulties are also a problem in financing graduate work.

Dr. Benner responded with the statement that he thinks use of the literature very beneficial, if the man is good. A thorough search of patent literature is absolutely essential. A research director has to make his work pay dividends. An industrial laboratory pays the cost of research work, if a degree can be obtained. The objection from the budget standpoint is therefore not

valid and can be worked out. In general educational institutions regard industrial thesis work as specific rather than general, and will not grant degrees for it. In some industries a doctor's degree is a necessary title to secure the necessary class distinction in order to occupy the better positions and to receive better emoluments.

Dr. Taylor commented that the university should give fundamental training, plus the ability to enable students to use their wits. Known facts are not a subject for research.

Mr. George M. Bramann of Niacet Chemical Corporation emphasized that students should be taught that in industrial work the grade is either zero or one hundred per cent. There is no intermediate. He also suggested that a patent or a major improvement should be ample to merit a doctor's degree, and should be considered as the thesis. He also suggested another course for the university curriculum: "Chemistry as Taught by the Patent Literature". This would teach the student that there is such a thing as a patent and a lot about the practical aspects of patents. Students should also be taught what a chemist does. Most students haven't the remotest idea what the chemist actually does after he graduates. Industry should coöperate with this by permitting students to "get inside the fence".

Mr. G. J. Easter of the Carborundum Company pleaded that undergraduates be taught to think instead of being vats into which information is poured. Courses do not teach students to think. Courses should train men rather than analysts, test tube washers, etc.

Mr. W. H. Koch of Mathieson Alkali stated that industry wants the man that can do the job. Therefore, it must try the men out. Training as well as the ability to think is necessary.

Dr. Crowdle replied that teaching people to think is a question of the individual's fundamental equipment, very largely, and not necessarily a faculty susceptible of development. Further discussion brought out the opinions that exact analytical work was a requirement for good chemists. Inaccuracies must not be tolerated in their training.

Dr. Cartledge stressed the fact that what the teacher needs from industry is good raw material upon which to work. Send teachers real prospects and locate the men for them.

Dr. Vaughn brought out the fact that recent graduates lack the ability to write reports. This is important and is a job the university should do. The English department should be asked to produce results here.

Dr. George W. Fiero stated that the university teaches known facts; industry teaches the unknown or new things. The university turns out men; the industry products. Only seven per cent of students are exceptional but industry wants only the seven per cent. Thirty per cent of students flunk the first semester. Only fifty per cent of our entrants graduate, and these represent only twenty per cent of the high school graduates.

Mr. Sievenpiper remarked that teachers should teach exactitude rather than variety.

Those present voted the meeting a very successful and interesting one.

Correction

Wesley M. Noble received the degree of Ph.B. instead of Ph.D. as indicated in the October CHEMIST. He has been elected to Junior membership in the INSTITUTE.

Pennsylvania

Chairman, Gilbert E. Seil *Vice-chairman,* Walter L. Obold
Secretary-treasurer, Maurice L. Moore
Sharpe and Dohme, Inc.
P. O. Box 1404
Philadelphia, Penna.
Council Representative, Joseph W. E. Harrisson

The Pennsylvania Chapter met at the Engineers Club, Philadelphia, on October 28, 1937, with an attendance of twenty-four for the first meeting of the year. The regular meeting was preceded by an informal dinner at 6:30 P.M. Following the transaction of the usual business, the chairman initiated a discussion of programs and activities for the year which led to the announcement that meetings would be held regularly on the fourth Tuesday of each month, except December, as no meeting would be held that month. A program committee was appointed to arrange the programs for the scheduled meetings and to plan for at least two plant trips during the year. Dr. Seil reported upon his trip to the dedication services at the Chemistry Building of the University of Delaware, as the representative of the INSTITUTE.

The speaker of the evening was Mr. J. I. Wexlin of the Bausch and Lomb Optical Company, who gave a talk on "Light Facts". A motion picture entitled "Eyes of Science" was shown to describe the development of optical instruments from the early microscope of Leeuwenhoek to those of the present day and to demonstrate the properties of light upon which the use of the different instruments is based. A detailed description of the chemical microscope and its application brought out many questions from the group. Mr. Wexlin explained the many interesting applications of polarized light in solving technical problems.

A demonstration of the use of polarizing instruments in the testing and identification of mineral ores invoked a discussion during which many of the members described their use of these instruments in such varied fields as the rubber, paper, leather, and textile industries. A recent development has been the use of polarizing microscopes in the study of tissue and bone growth in medicine. It was generally conceded that this was one of the most interesting meetings of the Pennsylvania Chapter.

The November meeting of the Chapter was held at the Engineers Club, Tuesday evening, November twenty-third, with an attendance of twenty-eight. Following the usual business, the Program Committee announced the following schedule of programs for the meetings during the remainder of the year: January twenty-fifth, "Silicates"; February twenty-second, "Petroleum"; March twenty-second, "Organic Chemistry in Medicine"; April twenty-sixth, "Chemistry and Plant Growth"; May twenty-fourth, subject to be announced; and on June twenty-fifth, the Annual Outing and Banquet.

Dr. Seil was the speaker of the evening and discussed some of the rarely considered concepts of the energy relationship in chemical reactions. What, for example, is the real phase of water at the boiling point while it is absorbing the heat of vaporization? Reaction constants of materials reacting while

dissolved in immiscible solvents were discussed and the similarity between such reactions at room temperature when the solvents are ether and water and at metallurgical furnace temperatures when the solvents are molten metal and molten slag was pointed out. Experience shows that at high temperatures these reactions do not always follow the generally accepted rules. The talk was illustrated by showing thin sections of slags in polarized light.

Washington

Honorary President, Charles E. Munroe *President*, Louis N. Markwood
Vice-President, Norris W. Matthews *Treasurer*, James B. Martin

Secretary, A. P. Bradshaw
2121 New York Avenue, Washington, D. C.

News Reporter to THE CHEMIST, James F. Couch
Council Representative, Louis N. Markwood

BOOKS

A new edition of *Law of Chemical Patents* by Edward Thomas, New York Patent Attorney, is nearly completed. It will include new material such as these subject headings indicate: Chapter 6 ("Of the Nature of a Patentable Manufacture or Composition of Matter"), "Pure Chemical Compounds. Coatings and Coverings. Transitory Products. Patents are not Granted if Founded upon Statements which the Examiner Believes to be Untrue. Patent Office may Require Proof that a Medicinal Compound is Useful Beyond Reasonable Doubt." In Chapter 7 ("Of Anticipation by Prior Uses in General and as Related to Processes"), we find under "New Step" the following, "Miscellaneous, Mechanical, Metal Working, Bacteriological, and Chemical." Chapter 8 ("Of Anticipations by Prior Uses as Related to Compositions of Matter and Manufactures") includes "Laminated Structures; In Metal Working; Of Alloys; and Chemical Compounds." Chapter 9 covers the "Anticipation of a Chemical Apparatus." Chapter 11 ("Of the Nature of a Valid Process Claim in the Patent") contains a subhead "Broad Claims need Broad Foundations in Specifications." Chapter 12 ("Of the Nature of a Valid Composition of Matter or Manufacture Claim") covers "Broad Claims Need Broad Foundations in Specifications" and "Markush Type Claims Enumerate Alternatives." Chapter 14 is devoted to the "Infringement of Patents on Chemical Apparatus."

In an interview, Mr. Thomas informed us that in reviewing the outlook for this new edition of his *Law of Chemical Patents*, he cast about seeking an estimate of the relative importance of chemical patent problems and mechanical patent problems.

He attempted to estimate the varying numbers of chemical patents issued by counting in sundry weekly issues of the *Official Gazette* the number of patents issued without drawings and found the proportion fairly stable from 1907 to 1932 at about 6½ per cent of all patents issued. Later the proportion rose to 8½ per cent and recently has reached 10½ per cent of the total issue of patents.

The true number of chemical patents issued exceeds, of course, that count, and very likely the recent estimate of 15 per cent by a writer in the *Journal of the Patent Office Society* is accurate. That writer made his estimate by counting the patents issued by the so-called Chemical Divisions of the Patent Office, although some classes of invention are considerably mixed. The inventions falling into Class 91, "Coating", for instance, are largely mechnical, but probably a nearly equal number may be called chemical. Possibly an equal number of mechanical inventions are patented in the Chemical Divisions, so 15 per cent may be a good guess.

Litigation and other printed decisions on inventions present, however, a very different picture. Four hundred consecutive pages of *United States Patents Quarterly*, begun at random in 1935, showed thirty-three chemical decisions, either litigated or *ex parte* appeals, and twenty-nine mechanical decisions, scattered among trade mark and copyright and design patent decisions.

In other words, if printed decisions are a fair measure, the ten to fifteen per cent of chemical inventions cause more trouble than all the eighty-five to ninety per cent of mechanical inventions.

Evidently the problems of chemical patent law called for a more adequate and complete discussion than can be given in a book on general patent laws.

The breadth of an allowable claim in view of a given disclosure in the specification, and the bearing or non-bearing of possible equivalents, seemed to be the foundation of more controversies than any other questions raised. As yet no general rule for answering either of these questions has been formulated and generally accepted.

A careful survey of the printed decisions indicated that a book of more than a thousand pages of text would be needed to present completely the phases of unsettled problems which have already been passed upon and to set forth adequately the rulings of the Courts and the Patent Office Board of Appeals on these phases of patent law.

Such a book, according to the views of the publishers, would be heavy and awkward for desk use, to say nothing of being prohibitively expensive for the attorneys and chemists who would want to consult it oftenest, because of lack of experience in the field the book covers.

To meet this need for a more comprehensive volume on chemical patents, the new edition of *Law of Chemical Patents* nearly doubles the size of the first issue of 368 pages. It will appear as soon as indexing and printing is completed.

Dr. Thomas H. Norton, research chemist of the American Cyanamid Company, was presented the Lavoisier medal of the Société Chimique de France at a meeting of the American section of the Société de Chimie Industrielle held at Columbia University on November ninetecnth. The presentation was made by Comte de Ferry de Fontnouvelle, French Consul General. The award was made to Dr. Norton for achievements in the fields of synthetic resins, dyestuffs, and nitrates. Following the presentation of the medal, Dr. Francis F. Lucas of the Bell Telephone Laboratories delivered an illustrated address on "Ultra Violet Microscopy."

NORTHERN LIGHTS

***By* Howard W. Post, F.A.I.C.**

From a pedagogical point of view one of the hardest concepts to put across seems to be the idea of a truly reversible reaction. The average student thinks of reversibility as a good idea but rather impracticable, as not affecting any of the real reactions with which he daily comes in contact. He seems to think that the progress of a chemical reaction is something like the flow of water in that it goes down hill and stays there (neglecting the action of the sun!). This comment was inspired by a reading of an article by Alexander, Horn, and Munro in *Canadian Journal of Research* **15** 438 (1937) entitled "The Catalytic Dehydration of Ethyl Alcohol by Alumina, II." There was a time, within the memory of man, when this reaction leading to the preparation of ethylene was of supreme importance as a step in the manufacture of mustard gas, badly needed a few thousand miles to the east of us. Although some of us never saw mustard gas we did see plenty of the materials from which it was made. A certain amount of research was carried out under government supervision in those hectic days of 1917 at various universities about the country until the laboratories of the Chemical Warfare Service were ready. And so the theoretical chemist had his day until the time came when he could turn over his results to the practically minded manufacturer in the military service. Then came 1919 and the partnership between theory and practice was dissolved. But the work went right on in two ways. In the first place we now know that tons of synthetic ethanol are being made annually by the catalytic hydration of ethylene from petroleum. This is the reverse of the reaction by which ethylene was prepared with alumina. In other words, man has so far progressed in his discovery and application of the laws of the universe that he can take a given chemical reaction and make it run backwards or forwards to suit his will and the needs of the hour. There is food in that thought for much philosophical discussion and writing.

But to get back to Munro's paper, we find him with his collaborators going at the problem again from a theoretical point of view. The net result has been to clarify, at least as far as the samples used were concerned, the conditions under which ethylene or ether was formed in major quantities. The optimum water content of the alumina for the production of ethylene appeared to be 3.2 per cent and for ether from 10 to 14.7 per cent.

We were pleased to note an editorial in *Canadian Chemistry and Metallurgy*, **21** 330 (1937) entitled "Of Professional Interest." We were glad to see that space in a technical chemical journal could be found for matter of purely professional interest. The editorial reviewed the activities of the Canadian Institute of Chemistry in this field and suggested that this organization should logically be the one to conduct a survey and maintain a register of "chemically-skilled persons." The editorial notes also that the Canadian Institute has for some time conducted various enterprises looking toward finding the right man for the right job but that these activities have

never received the publicity which they have deserved. That is not only true in Canada but, we believe, as well in our own country. We like also the closing sentences of this article. The writer states in view of the more or less completely changed national situation, meaning probably the economic set up in particular, that there is a call not so much for the creation of new agencies to function along lines of admitted need but rather for the conditioning and authorization of organizations now at work.

Although we have more than once in times past visited the Canadian National Exhibition at Toronto, we regret now more than ever our inability to have done so in 1937. We understand from an article on page three hundred and fifty-four of the number quoted above, that Canadian Industries, Ltd., had a rather interesting booth. And then the writer of this second article goes on to say something about presenting science to the public—publicity committees please take note:

"One must reach the conclusion from observation of the reactions of the public that the average person had not developed a consuming interest in chemistry that will suffice to carry him or her beyond a few spectacular and comparatively meaningless experiments or some quite direct application to personal requirements." Isn't that the situation as we all find it when any publicity work is attempted? As the writer goes on to say, the average man of the street is interested, in an amused sort of way, in something that the newspapers headline as the smashing of the atom or the statement of some new theory of food that, if accepted would revolutionize our diets. He really has no regard for the thousands of discoveries which industrial and pedagogical chemists are making every day in the humble effort to raise the standard of living for humanity in general. But it must have been a good exhibit, to read its description, for the article praises the ability of those in charge in succeeding at last in presenting chemistry in such a way that the speakers and demonstrators were almost never left without an audience.

We should like to have seen the C. I. L. marionette theatre, the first marionette show used in Canada for advertising. The players represented "some of the creative reaction agents of chemical industry and its finished products."

"The history of science becomes very much a history of scientists." This was found in *Canadian Chemistry and Metallurgy* for November, 1937. Could any better way be found to justify, in a few words, the existence of the AMERICAN INSTITUTE OF CHEMISTS and similar organizations throughout the world?

Frederick Kenney, F.A.I.C., is now editor of *The Percolator*, published by The Chemists' Club, New York, N. Y.

Foster Dee Snell, F.A.I.C., addressed the St. Louis Section and Kansas City Section of the American Chemical Society on October fourth and fifth respectively. His subject was "Some Factors in Detergency." He also spoke before the Maryland Sales Representatives Association, on October eleventh at Baltimore, on "The Legal Chemistry of Foods."

CHEMISTS ABROAD

By James N. Taylor, F.A.I.C.

"THEORY AND PRACTICE" is the title of an address delivered by Mr. H. W. Cremer, M.Sc., F.I.C., M.I. Chem. E. (Director of Chemical Engineering Studies at London University) in the inauguration of the course in chemical engineering for the season 1937-1938, at the Sir John Cass Technical Institute, as reported in *The Chemical Trade Journal and Chemical Engineer (London)*. In the course of his address Mr. Cremer said:

"The young chemical engineer is making his mark in industry not on account of his technical skill alone, but also because of his more than passing acquaintance with the economics and legal aspects of his profession, with its essentially human side as typified by such important matters as the safety and welfare of those whose lot it is to work under his direction, and with works' administration generally. In fact," said Mr. Cremer, "I have good reasons for supposing that quite a number of employers of newly-fledged chemical engineers, having previously had some doubts as to whether they were wise in introducing this, to them, hybrid creature into their works, have found themselves rather in the position of those described in Goldsmith's familiar lines:

'And still they gazed and still the wonder grew
That one small head could carry all he knew.'

"It is in the hands of the coming generation of chemical engineers to maintain and foster that very desirable impression."

IT IS announced that the Board of Trade has re-appointed Mr. S. T. Kinsman, Sir Henry Sutcliffe, and Mr. W. J. U. Woolcock, C.M.G., C.B.E., to be members of the Dyestuffs Advisory Licensing Committee for a further period of three years. The Board has also appointed Sir Miles E. Mitchell, J.P., to be a member of the Committee for a period of three years.

MR. J. H. BLEAKLEY, junior member of a prominent Australian firm, has returned to Sydney after completing a world tour in the interests of his company. He reached London in time for the Coronation and later visited the Continental countries. He arrived in Canada in midsummer and then came on to the United States.

Mr. Bleakley, while enroute to the West Coast where he embarked for home, visited the principal cities of the United States, studying commercial, industrial and economic developments in the chemical and allied fields.

DR. JAYME STA. ROSA, Editor of *Revista de Chemica Industrial (Rio de Janeiro)* has presented, in the July 1937 issue of his Journal, the program of the Second Brazilian Chemical Congress held last Summer. The Congress was held under the patronage of the President of the Republic of Brazil. Dr. Joaquin Bertino was President of the Congress. Papers were presented on all branches of chemistry by a large number of prominent industrial leaders as well as by those in the academic world.

IN A paper presented to the Congrès Mondial de la Documentation Universelle last August, and now reprinted among the Miscellaneous Publications of the International Tin Research and Development Council, Drs. C. E. Homer and E. S. Hedges described the scheme followed by the latter body, but they introduced it with a paragraph that might well be adopted either as a policy, or for propaganda purposes, by numerous chemists engaged in industry. In its application to industry, the research and development movement is essentially a modern business weapon. Its ultimate object is commercial, although its paths are necessarily so devious that its links with commerce do not appear at first sight; for there is no direct commercial function. It is not the purpose of the research and development organization to sell a particular product; its purpose is to help others to sell the product by giving reliable information about its properties and limitations, and its suitability for different applications; by constantly improving the product and the manufacturing processes involved; by inventing new materials in which the product is used, and new applications for such materials; by helping consumers to overcome difficulties in the manufacture or service of the product; by engendering confidence throughout the industries concerned by providing accurate statistical data and showing that there exists an organization fully equipped to serve their needs.—*The Industrial Chemist* (*London*).

MR. C. A. KLEIN did a bit of leg-pulling at the annual dinner of the Manchester Section of the Oil and Colour Chemists' Association last week states INDICATOR in *The Oil and Colour Trades Journal* (*London*) for November nineteenth. He said they had recently been bothering themselves about solving the completely insoluble problem of "What is a chemist?" and had forgotten to ask their wives!

Twenty years ago a man had written to him and said: "Will you please see the son of a friend of mine. He wants to become a chemist and needs advice how to be trained." Mr. Klein duly received the boy and in a friendly, jovial way said: "So you want to be a chemist, my boy?" "Oh, no," the lad replied, "I don't want to be a chemist at all, but a doctor; and as I have not enough brains for a doctor, I would like to be a chemist."

Mr. Klein told this true story to a lawyer friend, who did not see anything in it. In fact, he naively asked: "What did you advise?" "I advised him to go in for law," retorted Mr. Klein.

There was a little fun, too, about colloid chemists. Mr. S. T. Kinsman, the chairman, said that Dr. Armstrong once referred to the colloid chemist as a "man who would describe his braces as suspensoids."

THE annual meeting and dinner of the British Association of Chemists was held at the Queen's Hotel, Birmingham, on Saturday, November 27, 1937.

Alexander Silverman, F.A.I.C., Head of the Department of Chemistry in the University of Pittsburgh, has been elected a Fellow of the Society of Glass Technology, England.

Dr. H. H. Sheldon spoke before the Chemistry Teachers' Club of New York at a meeting held November 19th, on the subject of "The Atom, 1937 Model."

NEWS

John Fitch King, F.A.I.C., Chairman of the Department of Chemistry of Williams College, Williamstown, Mass., sailed on December sixteenth for Berlin where he plans to spend some nine months doing research work with Professor Otto Hahn at the Kaiser Wilhelm Institute for Chemistry.

Alfred P. Sloan, Jr., Chairman, General Motors Corporation, announced the endowment of securities estimated at $10,000,000 to the Alfred P. Sloan Foundation, which he has been developing for several years. The objectives of this Foundation are in general to advance the interests of the community at large, but to concentrate mainly on a single objective; i. e., "the promotion of a wider knowledge of basic economic truths generally accepted as such by authorities of recognized standing . . . as well as a better understanding of economic problems in which we are today so greatly involved and as to which we are so importantly concerned."

"While the Alfred P. Sloan Foundation may undertake or promote activities on its own behalf, it will give preference to encouraging, through financial grants and otherwise, such useful agencies as already exist."

"Having been connected with industry during my entire life," Mr. Sloan said, "it seems eminently proper that I should turn back, in part, the proceeds of that activity with the hope of promoting a broader as well as a better understanding of the economic principles and national policies which have characterized American enterprise down through the years, and as a result of which its truly marvelous development has been made possible."

E. R. Weidlein, F.A.I.C., is on an extended trip in behalf of the American Chemical Society, during which he is speaking to various sections. His November schedule included talks on the first at San Francisco; on the third at Los Angeles; on the eighth and ninth at Wichita; on the eleventh at Dallas; on the twelfth at Austin; on the fifteenth at Houston; on the sixteenth at New Orleans, and on the nineteenth at Columbus. The titles of his talks are: "Broad Trends in Chemical Research," "Whither Industrial Research," "Progress through Chemistry," and "Betterments through Science."

Herman Maisner, a Fellow of THE AMERICAN INSTITUTE OF CHEMISTS since 1924, has recently received the degree of Doctor of Chemical Engineering from the Polytechnic Institute of Brooklyn. His dissertation was on "Vanadium Catalysts, their Performance and Poisoning by Arsenic in Sulfuric Acid Manufacture." He also possesses the degrees of B.A. in Letters and Science and B.Sc. in Chemistry from the University of California, and the degree of M.Sc. in Chemical Engineering from Columbia University. His position is research engineer with the M. W. Kellogg Company, Engineers and Builders of Petroleum Refineries and Equipment.

Jerome Alexander, F.A.I.C., spoke on "Colloid Chemistry and some of its Scientific, Biological, and Practical Aspects", at a meeting of the Chemistry Teachers' Club of New York, held October fifteenth.

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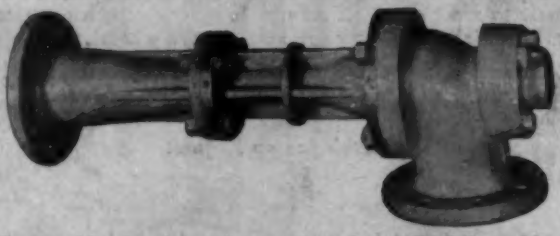

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